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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/965,681 | 09/27/2001 | Ove Eklund | CON/BRE0004 | 2907 |

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EXAMINER

LEWIS, AARON J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3743

DATE MAILED: 03/08/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,681

Applicant(s)

EKLUND ET AL.

Examiner

AARON J. LEWIS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/22/2003 (AMENDMENT).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25, 27-29 and 35-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20, 25, 27-29 and 35-41 is/are allowed.
- 6) ☒ Claim(s) 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Behbehani et al. ('713).

As to claim 21, Behbehani et al. disclose an apparatus for the detection and treatment of disordered breathing during sleep for use with a CPAP, the apparatus including a probe (11,15) for sampling breathing air flow data, in particular on inhalation, and an artificial neural network (25) for analyzing, directly or indirectly, said data to control breathing air pressure (col.3, lines 27-31). The probe (11,15) and artificial neural network (25) of Behbehani et al. are fully capable of performing the recited functions of periodically sampling said air flow and processing cepstrum parameters generated by converting A-parameters associated with a linear predictive coding analysis for each of said samples, respectively. These recited functions are the result of programming; consequently, their mere recitation does not structurally distinguish from the apparatus of Behbehani et al..

As to claim 23, Behbehani et al. disclose an automatic continuous positive airways pressure apparatus comprising a probe (11,15) for sampling breathing air flow data and an artificial neural network (25) for analyzing, directly or indirectly, said data to control breathing air pressure (col.3, lines 27-31). The probe (11,15) and artificial neural

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network (25) of Behbehani et al. are fully capable of performing the recited functions of periodically sampling said air flow and processing cepstrum parameters generated by converting A-parameters associated with a linear predictive coding analysis for each of said samples, respectively. These recited functions are the result of programming; consequently, their mere recitation does not structurally distinguish from the apparatus of Behbehani et al..

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behbehani et al. ('713) in view of Lin et al. ('466).

The difference between Behbehani et al. and claim 22 is an artificial neural network which is a Kohonen map-type.

Lin et al.(col.3, lines 46-col.4, line 62), in a kohonen neural network, teach the generation of and input of cepstrum coefficients into the neural network. These cepstrum coefficients are generated for the purpose of arranging the sampled data into matrix form to make it easier to compare (i.e. map) sampled data against stored (i.e. trained) information.

It would have been obvious to modify the neural network of Behbehani et al. to employ any well known type of neural network including a kohonen neural network as

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taught by Lin et al. because it would have constituted the mere substitution of one type of neural network for another.

As to claim 24, Behbehani et al. as modified by Lin et al. teach a neural network which employs a kohonen map neural network.

Allowable Subject Matter

5. Claims 1-20,25,27-29,35-41 are allowed.

Response to Arguments

6. Applicant's arguments filed 12/22/2003 have been fully considered but they are not persuasive with respect to claims 21-24.

Applicant's argument that the language which has been added to each of claims 21 and 23 distinguishes from Behbehani et al. is disagreed with because the language which was added constitutes recitations of intended result not positive structural limitations which structurally distinguish from Behbehani et al.. As pointed out above in the body of the rejection of these claims the probe (11,15) and artificial neural network (25) of Behbehani et al. are fully capable of performing the recited functions of periodically sampling said air flow and processing cepstrum parameters generated by converting A-parameters associated with a linear predictive coding analysis for each of said samples, respectively. These recited intended uses are the result of programming; consequently, their mere recitation does not structurally distinguish from the apparatus of Behbehani et al..

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Applicant's argument that the propriety of the combination of Behbehani et al. and Lin et al. is improper is disagreed with. The prior art combination is deemed to be valid for the reasons set forth above in the body of the rejection.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

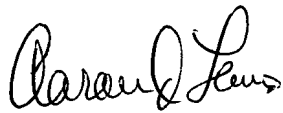
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON J. LEWIS whose telephone number is (703) 308-0716. The examiner can normally be reached on 9:30AM-6:00PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HENRY A. BENNETT can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AARON J. LEWIS
Primary Examiner
Art Unit 3743

Aaron J. Lewis
March 07, 2004